## **CLAIMS**

- 1. A compound comprising:
  - a porphyrin, and
  - a chemotherapeutic agent,

wherein said chemotherapeutic agent is not a polyamine, polyamine analog, cyclic polyamine, cyclic polyamine analog, dioxonaphthoquinone, or dioxonaphthoquinone derivative;

and all salts, hydrates, crystalline forms, and stereoisomers thereof.

- 2. The compound of claim 1, wherein the porphyrin is covalently linked to the chemotherapeutic agent.
- 3. The compound of claim 2, wherein the porphyrin is covalently linked to the chemotherapeutic agent via a linking group.
- 4. The compound of claim 2, wherein the porphyrin is selected from the group consisting of mesoporphyrins, deuteroporphyrins, hematoporphyrins, protoporhyrins, uroporphyrins, coproporphyrins, cytoporphyrins, rhodoporphyrin, pyrroporphyrin, etioporphyrins, phylloporphyrins, heptacarboxyporphyrins, hexacarboxyporphyrins, pentacarboxyporphyrins, and other alkylcarboxyporphyrins; and derivatives thereof.
- 5. The compound of claim 4, wherein the porphyrin is selected from the group consisting of derivatives of deuteroporphyrins.
- 6. The compound of claim 5, wherein the porphyrin is selected from the group consisting of sulfonic acid derivatives of deuteroporphyrins.
- 7. The compound of claim 4, wherein the porphyrin is a mesoporphyrin.

- 8. The compound of claim 7, wherein the porphyrin is mesoporphyrin IX.
- 9. The compound of claim 2, wherein the chemotherapeutic agent is selected from the group consisting of antitumor antibiotics, doxorubicin, bleomycin, dactinomycin, daunorubicin, epirubicin, idarubicin, mitoxantrone, mitomycin, epipodophyllotoxins, etoposide, teniposide, antimicrotubule agents, vinblastine, vincristine, vindesine, vinorelbine, other vinca alkaloids, taxanes, paclitaxel (taxol), docetaxel (taxotere), nitrogen mustards, chlorambucil, cyclophosphamide, estramustine, ifosfamide, mechlorethamine, melphalan, aziridines, thiotepa, alkyl sulfonates, busulfan, nitrosoureas, carmustine, lomustine, and streptozocin, platinum complexes, carboplatin cisplatin, alkylators, altretamine, dacarbazine, procarbazine, temozolamide, folate analogs, methotrexate, purine analogs, fludarabine, mercaptopurine, thiogaunine, adenosine analogs, cladribine, pentostatin, pyrimidine analogs, capecitabine, cytarabine, floxuridine, fluorouracil, gemcitabine, substituted ureas, hydroxyurea, camptothecin analogs, irinotecan and topotecan, topoisomerase I inhibitors, topoisomerase II inhibitors, and anthracycline antibiotics.
- 10. The compound of claim 2, wherein the chemotherapeutic agent is doxorubicin.
- 11. The compound of claim 2, wherein the chemotherapeutic agent is doxorubicin and the porphyrin is mesoporphyrin IX.
- 12. The compound of claim 11 of the structure:

wherein R is

- 13. A method of treating a disease characterized by uncontrolled cell proliferation, wherein the method comprises administering a therapeutically effective amount of a compound of claim 2.
- 14. The method of claim 13, wherein the disease is cancer.
- 15. A method of treating a disease characterized by uncontrolled cell proliferation, wherein the method comprises administering a therapeutically effective amount of the compound of claim 10.

- 16. A method of making a compound of claim 2, comprising forming a covalent bond between a porphyrin and a chemotherapeutic agent.
- 17. A method of making the compound of claim 12, comprising reacting doxorubicin with mesoporphyrin IX in the presence of a reagent that causes an amide bond to form, said amide bond form by reaction of a mesoporphyrin carboxyl group and a doxorubicin amino group.
- 18. The method of claim 17, wherein the reagent that causes an amide bond to form is selected from the group consisting of onium reagents and carbodiimides.